

APRIL 4, 1871.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-two members present.

MR. THOMAS MEEHAN, referring to the two-leaved division of Pinus of Gray's *Manual*, said that *Pinus mitis* was especially named as having sometimes three leaves in a fascicle; but in two others of that section, *P. inops* and *P. pungens*, he found the so-called leaves in threes almost as abundantly as in the former one. But the chief interest was that in all three species the three-leaved bundles became more numerous as the growth of the season approached its end. In many instances the fascicles just beneath the terminal buds were mostly in threes, and in those cases, where a second wave of growth had occurred, the terminal fascicles were almost wholly in threes. He thought that these indications of order in their production might eventually lead to the discovery of the plan on which the fascicles were produced. It would, at least, appear that in all two-leaved fascicles the germs of three were present, and that it depended on some varying phase of growth whether they were all developed or not.

Mr. M. also said, in regard to the *Acer rubrum*, that he had examined a large number of trees this season in order to test definitely whether there was any difference between the brown-flowered form and the darker one, that had hitherto escaped the attention of botanists. He found that there was no difference, but that as a general rule the brown ones were male; and it was the brown filaments which gave them this color. There were, however, occasional trees of both sexes which favored either color. But he found that there were no truly hermaphrodite flowers amongst them, and therefore the description of the books, "polygamodioecious," was not strictly correct. In many female trees there were apparent stamens, but the filaments were almost wanting, and he had been unable to find any of the anthers which they bore, polleniferous. These abortive stamens hardly extended at any time beyond the minute petals; while the true stamens in the male flowers had filaments extending a half inch or more beyond the petals. He suggested that the fact of the apparently hermaphrodite flowers in *Acer rubrum* being really pistillate was perhaps a small matter in itself; but it would have much interest to those who were observing how numerous were the species which fell in with Darwin's discovery, that many plants took especial pains to avoid self-fertilization.